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27 May 1970

25X1 MEMORANDUM FOR: [redacted]

SUBJECT : R&D Institute

1. After reviewing the "Proposal for a Research and Development Institute" (IHC-D-128/3), and listening to the comments at the May 20 IHC meeting, I would like to offer the following comments which you may find useful. Do with them what you will.

2. There are two implicit assumptions in the proposal which should be examined: (1) that the intelligence information handling problems are somehow unique and different from those encountered by any other organization, and are therefore solvable only by unique methods, and (2) that there is a basis of commonality in the problems faced by the intelligence community, and therefore a concerted effort in attacking these problems is somehow better than individual solutions. It is my contention that both of these assumptions are invalid.

3. With respect to the first, an examination of the 19 potential task areas (listed in Attachment D to the Proposal) reveals that, with the exception of the first task area which is concerned with computer security controls and systems, there are no unique areas of interest. Many of the areas use the words "intelligence data" - whatever that is - in their descriptive text. If, however, the word "intelligence" is omitted, what are described are common problems plaguing any large organization using computers, and these problems are being attacked with vigor in the outside world. For example, in the area of scientific documentation, which covers roughly half of the proposed task areas, the National Science Foundation Report #15 on Scientific Documentation, lists 785 individual projects employing over 1400 people in 350 organizations. This work is sponsored by 125 Societies, Foundations, Government Bureaus and Agencies. The budget for this endeavor, roughly calculated at $50K per project, amounts to $40M, or, if taken at $20K per investigator, to $30M.

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Other task areas, such as the development of memories, the design of distribution networks, etc., are certainly not peculiar to intelligence agencies, and are being fully investigated by Bell Labs (bubble memories), IBM, IT&T, and numerous other commercial firms who have a high monetary interest in their outcome. Many of the commercially available programs, hardware and techniques are not being exploited to their fullest extent, and indeed, may not be known to the individual agencies. In view of the enormous effort that is being expended to solve problems in the task areas cited, it is not very likely that any contribution, whether large or small by agency or community standards, will have any appreciable impact or hasten the development of solutions.

4. The second assumption appears valid only if not examined too closely, and was the basis for the COINS concept. It seemed logical to question why each Agency should maintain separate biographic files, for example, and an attempt has been made to consolidate these for community use. Disregarding the mechanical problems of whether to use separate computers or a central unit, what languages to use, how to switch queries and responses, and querying and security problems, (which are not trivial), it turns out that each Agency creates and maintains their own biographic files to best serve their own requirements. For this reason, these files are, in each Agency, widely different in method of storage, content, structure and query method. The lack of common purpose, except in the broadest possible sense, lack of common data bases and lack of common equipment therefore precludes even the definition of community problems, much less their solution. Moreover, the effort to create a common data base to serve these divergent interests seems to us almost certain to increase the cost of file maintenance rather than reduce it.

5. The ADP management structure within the CIA (and presumably in the other intelligence agencies) is highly decentralized, which tends to encourage local initiative. This is probably a good thing; however, it also reduces the long range planning effort, gives inadequate project control and does permit duplication of effort - all of which are necessary on an Agency and community wide basis to properly set up an R&D Institute which will produce useful output. This does not mean that a highly centralized system is to be preferred to the present loose, decentralized system. A community wide, centralized R&D effort would be so heavily bureaucratic and so remote from the user that there would be no advantages to be gained.

6. What is needed, then, is some form of centralized review and planning mechanism which would permit local initiative to flourish and at the same time prevent the technical wheel from being reinvented, or, worse still, square wheels from being produced. Whether the mechanism is a full time inter-agency staff, or a technological gatekeeper group from one agency with a charter to make community wide recommendations to higher authority, or some other mechanism, is a different question and beyond the scope of this paper. Indeed, the ASPIN Committee has been examining many of these points within the CIA for a year and will undoubtedly arrive at some conclusions regarding centralized versus decentralized management systems. Perhaps a similar study on Community Systems, covering such concepts as COINS, VIDEOFILE, [redacted] the R&D Institute and others would provide a concept of the magnitude of work currently underway and give fresh insight into ways to coordinate these efforts without completely stifling them. 25X1

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